Campus Needs Assessment
Valley Vista Elementary School
Grade 6

Standards-based Connections Set and Learning Objectives

English-Language Arts:
Reading Comprehension: 2.2, 2.3, 2.4, 2.6, 3.6
Writing: 1.2, 2.2, 2.3, 2.5
Conventions: 1.0 (entire standard)
Listening and Speaking: 1.0, 2.0

- Students will be able to analyze text through a compare and contrast organizational pattern to form opinions about waste streams (as well as, at other sites).
- Students will be able to connect and clarify main ideas of text concerning the waste stream by identifying their relationships to other sources and related topics.
- Students will be able to clarify an understanding of texts by creating outlines, logical notes, summaries, or reports concerning waste.
- Students will determine the adequacy and appropriateness of the evidence for an author' conclusions about waste.
- Students will be able to identify and analyze features of themes conveyed through characters, action, and images in books pertaining to waste.
- Students will be able to create multiple-paragraph expository compositions about what they are learning from the UES unit.
- Students will write an expository composition, research report, and persuasive composition on what they have experienced in the UES unit.
- Students will write and speak with a command of Standard English conventions appropriate to this grade level.
- Students will be able to deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience.
- Students will deliver well-organized formal presentations employing traditional strategies like narration, exposition, persuasion, and description.

Math
Statistics, Data, Probability: 1.0, 2.0, 3.0

- Students will be able to compute the range, mean, median, and mode of data collected from audit and know why a specific measure of central tendency provides the most useful information in a given context.
- Students will use data samples taken from audit and describe characteristics and limitations of the samples.
- Students will determine experimental probabilities to make predictions about events.

History
(In summary the concepts of systems throughout civilization can be addressed, however, no specific standard could be directly connected in this unit.)

Science:
6.a, 6.b, 6.c, 7

- Students will know the utility of energy sources is determined by factors that are involved in converting these sources to useful forms and the consequences of the conversion process, such as the energy involved to distribute waste stream.
- Students will know different natural energy and material resources, including air, soil, rocks, minerals, petroleum, fresh water, wildlife, forests, and how to classify them as renewable or non renewable.
- Students will know the natural origin of the materials used to make common objects.
- Students will make meaningful questions and conduct careful investigations.

Lesson Planning

Pre-assessment strategies: Students will begin with a KWL chart and ask: What is waste? An evaluation can be done through this practice by letting students share what knowledge they have and therefore can determine what else needs to be acquired. Students will begin discussing waste at Valley Vista and how to find out more with possible surveys, interviews, weighing, and separating.

Remediation strategy for any prerequisite knowledge and skills: For students who do not have any prior knowledge of waste, all students will be learning as they go. Some of the reasoning for cross-age collaboration (reason for having buddy system, as well as, to build school community) is to engage students and promote awareness throughout the grades. Younger students can take the knowledge and continue to grow on site, where as, older students receive the knowledge for one year and then move to the middle school. All other remediation for specific skills will be achieved through one on one interaction between teacher and students or other mentors that is built into their learning plan.

Teaming Considerations: We decided to pair one 5/6 grader to one 2/3 grader to incorporate future stewards and to strengthen the school's community. For some lessons, students will be split and both teachers will be doing lessons with buddy groups. Vanessa will do condensed lessons of the ones in this unit with all classes in the garden. Therefore all students at valley Vista can have some background knowledge at the completion of year one.

Lesson 1

Standards based learning objectives:

- Students will be able to connect and clarify main ideas of text concerning the waste stream by identifying their relationships to other sources and related topics.
- Students will be able to clarify an understanding of texts by creating outlines, logical notes, summaries, or reports concerning waste.
- Students will determine the adequacy and appropriateness of the evidence for an author's conclusions about waste.
- Students will be able to identify and analyze features of themes conveyed through characters, action, and images in books pertaining to waste.
- Students will know different natural energy and material resources, including air, soil, rocks, minerals, petroleum, fresh water, wildlife, forests, and how to classify them as renewable or non renewable.
- Students will know the utility of energy sources is determined by factors that are involved in converting these sources to useful forms and the consequences of the conversion process, such as the energy involved to distribute waste stream.

Adopted Instructional Materials and Other Resources:

The Lorax, Yonder River Runs Wild, Giving Tree, and Still the Turtle Watched

Summary Description/Procedure:

In a group setting, students will listen to a read a loud from one of the stories listed above. Students will discuss the relationship these stories have with solid waste. Teacher will introduce SB373 and discuss with class how students will be doing an investigative study about the waste stream at their school site. Students will be paired, at this time, with a "younger buddy" (2/3rd grader was paired with a 5/6th grader as part of the collaborating class-at Valley Vista). Student pairs will produce an opinion of the book they read and describe how it is related to waste either by written paragraph, drawing, or both followed by a share out from all students.

Responsible Individuals: Mike (5/6), Carolyn (2/3), Vanessa (K-6)

Timeline: Week one of second semester of planning year

Lesson Duration: 1 1/2 hours for story and discussion, 1 1/2 hours for pairing and assessment

Lesson 2

Standards-based Learning Objectives:

- Students will write and speak with a command of Standard English conventions appropriate to this grade level.
- Students will be able to deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience.
- Students will deliver well-organized formal presentations employing traditional strategies like narration, exposition, persuasion, and description.
- Students will know different natural energy and material resources, including air, soil, rocks, minerals, petroleum, fresh water, wildlife, forests, and how to classify them as renewable or non renewable.
- Students will know the natural origin of the materials used to make common objects.
- Students will make meaningful questions and conduct careful investigations.

Adopted Instructional Materials and Other Resources:

Classification Tool from Closing the Loop for categorizing man made objects into the natural resources they originally come from. (Pg. U1-9) Math book is by Harcourt--Chapter 5 "Collect and Organize Data" p.92-115

Summary Description:

Teacher will open with reviewing the KWL chart and highlighting anything that pertains to "Where do things go? Where do things come from?" and related comments. Teacher will begin discussion with the concept of renewable and non-renewable and relate natural resources. Teacher will pass out classification chart and pairs will walk the school campus to identify different man made objects and what natural resources are being used. For example buildings, windows, white boards, litter, pencils, clothes, etc. will be classified as plants, animals, soil, minerals, or energy sources. Students must return in given time frame with examples in each of the five categories. When class reunites, students will share out what they found in the appropriate classification. Discussion will return to renewable and non-renewable when speaking about all of the products the students found on their walk made from natural resources. "Where does it all come from? Where does it all go?"

In a following activity, students will be asked to choose their most prized possession in their life (stuffed animal, bicycle, PS2, photo album, etc.). Students will be asked to write down all of the materials it took to make that item. Students will then be asked to write down what natural resource those materials came from. Students will make a mobile demonstrating the natural origins of their most prized possession with an earth at the bottom of all mobiles to remind students where everything comes from. For example: pencil>pulp>tree>plant, pencil>lead>mineral, pencil>eraser >gum>tree>plant. Students will share out their end projects.

Responsible Individuals: Mike, Carolyn, Vanessa

Timeline: second and third day of week one

Lesson Duration: 1-½ hours for discussion, classification search, and share out, 1-½ hours for mobile making and share out

Lesson 3

Learning Objectives:

- Students will be able to connect and clarify main ideas of text concerning the waste stream by identifying their relationships to other sources and related topics.
- Students will be able to create multiple-paragraph expository compositions about what they are learning from the UES unit.
- Students will be able to deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience.
- Students will write and speak with a command of Standard English conventions appropriate to this grade level.
- Students will make meaningful questions and conduct careful investigations.

Adopted Instructional Materials and Other Resources:

Map of School, "Power Shift" video produced by WorldLink Media, narrated by Cameron Diaz.

Summary Description:

Students will watch videos and discuss what goes into the trash, where else things can go, and how our society supports a "disposable lifestyle". Students will reflect in an essay their response to, "What could you do to cut down on waste?" Students will then walk around campus with their buddy and map all of the places where trash is generated and placed at school. Teacher prior to activity will acquire full access to parking lots, staff rooms, and the office. Students will then refocus on their essay to see if they would change anything. Students will compare their findings on their maps and essays with a share out with their buddies.

Responsible Individuals: Mike, Carolyn, and Vanessa

Timeline: fourth and fifth day of week one

Lesson Duration: 1-½ hours for discussion and essay, 1-½ hours for mapping exercise and share out

Lesson 4

Learning Objectives:

- Students will be able to analyze text through a compare and contrast organizational pattern to form opinions about waste streams (as well as, at other sites).
- Students will be able to connect and clarify main ideas of text concerning the waste stream by identifying their relationships to other sources and related topics.
- Students will be able to clarify an understanding of texts by creating outlines, logical notes, summaries, or reports concerning waste.
- Students will determine the adequacy and appropriateness of the evidence for an author's conclusions about waste.
- Students will be able to create multiple-paragraph expository compositions about what they are learning from the UES unit.
- Students will write and speak with a command of Standard English conventions appropriate to this grade level.
- Students will be able to deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience.
- Students will know the utility of energy sources is determines by factors that are involved in converting these sources to useful forms and the consequences of the conversion process, such as the energy involved to distribute waste stream.
- Students will know different natural energy and material resources, including air, soil, rocks, minerals, petroleum, fresh water, wildlife, forests, and how to classify them as renewable or non renewable.

Adopted Instructional Materials and Other Resources:

Resources that the Recycling Facilities may have that is student appropriate. Social Science is Houghton Mifflin which explains kitchen midden in chapter 3 - Learning about the past. Other books about alternative ways to managing waste. Science is McGraw Hill-chapter 7 "Ecosystems", p.241 - 270, but chapters 9 and 10 may have also been used - they are on "Resources of the Crust" and "Earth's Air, Water, and Energy" These make reference to California's water, energy, and natural resources, as well as, earth's minerals, cycles of life, and water/resource conservation within ecosystems

Summary Description:

Teacher will point out resources available to students in classroom (see above) to learn about what other civilizations, groups of people, and individuals have done to accommodate waste. Students will write summaries of the information they gather for one civilization/group/individual and share out with classmates about what they have learned. Students will then go on a field trip to their local waste management facility. Students will have the opportunity to tour landfill and recycling site. Upon return, students will be asked to summarize with their buddies what they learned on the field trip and how it compares to the KWL chart.

Responsible Individuals: Mike, Carolyn, Vanessa, lots of drivers for the field trip

Timeline: three days of week two

Lesson Duration: 1-½ hours for investigating texts, writing, and sharing. 3 hours for field trip travel and visit. 1-½ hours for reflection, writing, and share out.

Lesson 5
Learning Objectives:

- Students will make meaningful questions and conduct careful investigations.
- Students will write and speak with a command of Standard English conventions appropriate to this grade level.
- Students will be able to compute the range, mean, median, and mode of data collected from audit and know why a specific measure of central tendency provides the most useful information in a given context.
- Students will use data samples taken from audit and describe characteristics and limitations of the samples.
- Students will determine experimental probabilities to make predictions about events.

Adopted Instructional Materials and Other Resources:
Audit sheets designed by 6th graders to obtain information they needed

Summary Description:
Students will pair with buddies and be assigned to one area of the school, for instance, one classroom, the lunchroom, the office, etc. Students will then patrol that area everyday for one week. The first two days, students and buddies will first categorize the waste into trash, recyclables, or compost. The second week students will patrol the same area in the later part of the school day to weigh the trash and recycling bins with their buddies. On the fifth day students will gather all trash from around campus (in bags) and place in the central part of the campus in order for ALL classes of the site to come for a "walking field trip to the front of the garden" and see the mound of trash collected in one day at Valley Vista. Students will always be responsible for making sure they wear their gloves when doing this work and returning trash to appropriate places. Students will then graph and discuss their findings in the classroom.

Responsible Individuals: Mike, Carolyn, Vanessa, Gary (custodian), Maureen, other teachers' cooperation for "field trip"

Timeline: week three and four (last day of week four is "walking field trip")

Lesson Duration: 1 ½ hours for patrolling 4 days in a week, 1 ½ hours for discussion and graphing 2 days in that week, 2 ½ hours for hosting the field trip

Lesson 6
Learning Objectives:

- Students will write and speak with a command of Standard English conventions appropriate to this grade level.
- Students will be able to deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience.

Adopted Instructional Materials and Other Resources:
Map of School, "Power Shift" (video) by World Link Media, narrated by Cameron Diaz. Also power point presentations

Summary Description:
All students will decide how they want to share the information they have gathered with the rest of the school population. Students will work with their buddies in determining how they will present their knowledge about natural resources, renewable and non-renewable, their essays about their trip to the landfill, the school map representing the waste stream at Valley Vista, and the data from the waste audit. Students can show films they saw, make their own power point presentations with help from the on site computer lab, or create other forms of presenting (skits, art show, comic book, children's book, dance, etc.) to best express to other students what they have experienced.

Responsible Individuals: Mike, Carolyn, Vanessa, other classroom teachers to allow students to present to their classes

Timeline: week five and six

Lesson Duration: One week to prepare presentations and one week to present to other classes

Lesson 7
Learning Objectives:

- Students will be able to analyze text through a compare and contrast organizational pattern to form opinions about waste streams (as well as, at other sites).
- Students will be able to connect and clarify main ideas of text concerning the waste stream by identifying their relationships to other sources and related topics.
- Students will be able to clarify an understanding of texts by creating outlines, logical notes, summaries, or reports concerning waste.
- Students will determine the adequacy and appropriateness of the evidence for an author's conclusions about waste.
- Students will write an expository composition, research report, and persuasive composition on what they have experienced in the UES unit.
- Students will write and speak with a command of Standard English conventions appropriate to this grade level.
- Students will be able to deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience.
- Students will deliver well-organized formal presentations employing traditional strategies like narration, exposition, persuasion, and description.
- Students will use data samples taken from audit and describe characteristics and limitations of the samples.
- Students will determine experimental probabilities to make predictions about events.
- Students will know the utility of energy sources is determined by factors that are involved in converting these sources to useful forms and the consequences of the conversion process, such as the energy involved to distribute waste stream.
- Students will know different natural energy and material resources, including air, soil, rocks, minerals, petroleum, fresh water, wildlife, forests, and how to classify them as renewable or non renewable.
- Students will make meaningful questions and conduct careful investigations.

Adopted Instructional Materials and Other Resources:
Photographic representations of how other school sites are reducing waste (Oak Grove School, Graton and Mary E. Silivaria, San Rafael), information about homeless shelter food bank (COTS in Petaluma), information about vermicomposting and example worm bin, articles about reducing waste in different areas of society

Summary Description:
Students will investigate different resources teacher has made available concerning options for how to reduce waste at school site. Students will focus on one particular area which interests them, for instance, how to have a better recycling team and efforts at site, vermicomposting, a share table during snack and lunch times, or other ideas they come up with. Students will work with others interested in the same topic and research into what it will take to make those suggestions come to reality on school site. For instance, if vermicomposting were chosen by a particular group of students, questions to be asked

would be what do we need? How much? Where do we get it from? How will other students learn to incorporate vermicomposting into their school days? What support does there need to be? Who is affected by this decision? In their groups, students will write a persuasive essay expressing their point of view of the waste stream at Valley Vista based upon their research and reasons to support their positive solutions for change. Students will share with one another their solutions. Students will then make presentations to principal, other staff and parental members of the school community to activate better waste management.

Responsible Individuals: Mike, Carolyn, Vanessa, Gary, Maureen, other staff and parental members of school community

Timeline: week seven and beyond……..
Lesson Duration: 3 hours for investigating resources, 2 hours for writing essay, time to present pending on exact audience (staff meeting, site council)

Assessment Strategies for Campus Needs Assessment: Each week students will journal about what they did for the project that week. Students will be encouraged to note and write about any changes they see in their thinking or their behavior. Students will be permitted to share, if they incline to do so. Over time this will allow for students, teachers, and parents to note how this investigation is affecting the students, their attitudes towards waste, as well, as their behaviors and opinions.

Celebrations: When students present to other classes, they will have a celebratory non-waste lunch sponsored by the students in the garden. Students that had not been involved in the project will cook a meal, where they compost everything they do not use for cooking. Bowls and forks will be provided and washed/sanitized by a group of garden students. Project students will enjoy a cooked lunch in the garden.

Timeline: May 2004

Work plan for Year One of School's UES Program
Leadership Team:
Mike Pesutich, 5/6th grade
Carolyn Huntiziker, 2/3rd grade
Vanessa Passarelli, Teaching Garden/Science Instructor K-6
Maureen Veith, Principal
Laura Powell-CREEC

School and District Administrative Support:
Steve Bowman-District Fiscal Manager
Greta Vigue-District Superintendent
Vivian Loh/Patty Gerret-Distict Food Service Manager

Community Partners:
Alexia Nowotny-North Bay (hauler) education coordinator

Additional Support mechanisms:
CIWMB
SEER

Timeline:
Task
Complete Design of Campus Need Assessment: October 2003
Maureen, Vanessa, Carolyn

Implement Campus Needs Assessment: January-April 2004
Mike, Carolyn. Vanessa, Maureen

Team reviews results of Campus Needs Assessment: April 2004
And begins implementation planning
Mike, Carolyn, Maureen, Vanessa, Laura (UES team)

Year Two Implementation Plan Meeting: February 26, 2004
UES team, SEER staff, OEE staff

Submit 1st draft of Year Two Implementation Plan to Seer for review: March 23, 2004
UES team

Review and comment on implementation plan: March 23, 2004
SEER

Final Year Two Implementation Plan completed: March 31, 2004
UES team

Present Year Two Implementation Plan to School Board: March 31, 2004

UES team

Submit Year Two Implementation Plan for CIWMB approval: March 2004
UES team

CIWMB staff reviews Year Two Implementation plans: March 31, 2204
And considers year two funding
CIWMB staff

UES Grantees informed of Year Two approval: April 2004
CIWMB staff

Phase Two agreements sent to grantees and returned to grantees: April 2004
CIWMB staff

Team building and preparation for summer institute: May 2004
SEER staff and grantees

EIC Model Institute: July 12-15, 2004
Petaluma team, other grantees, SEER, OEE